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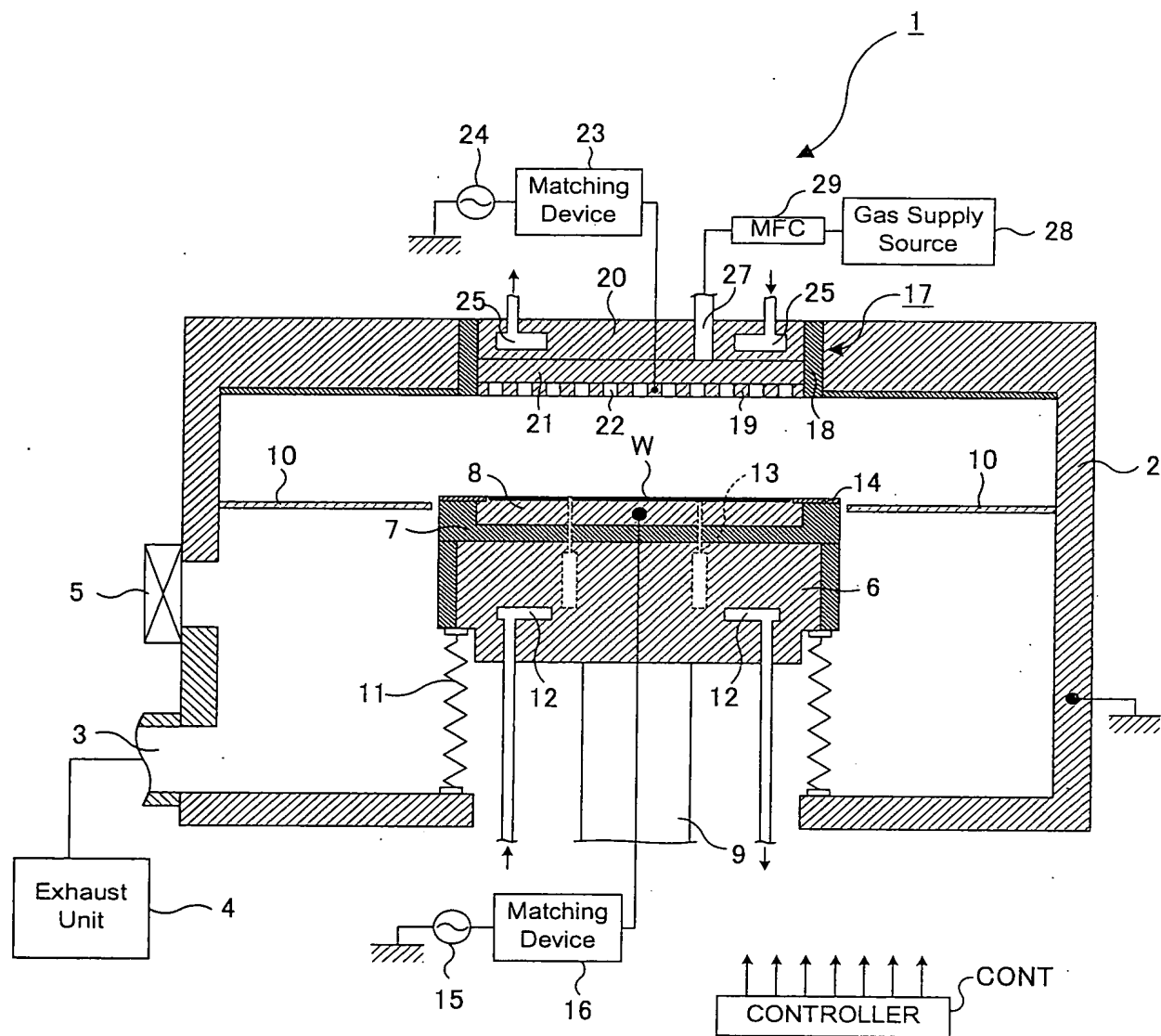


FIG.1

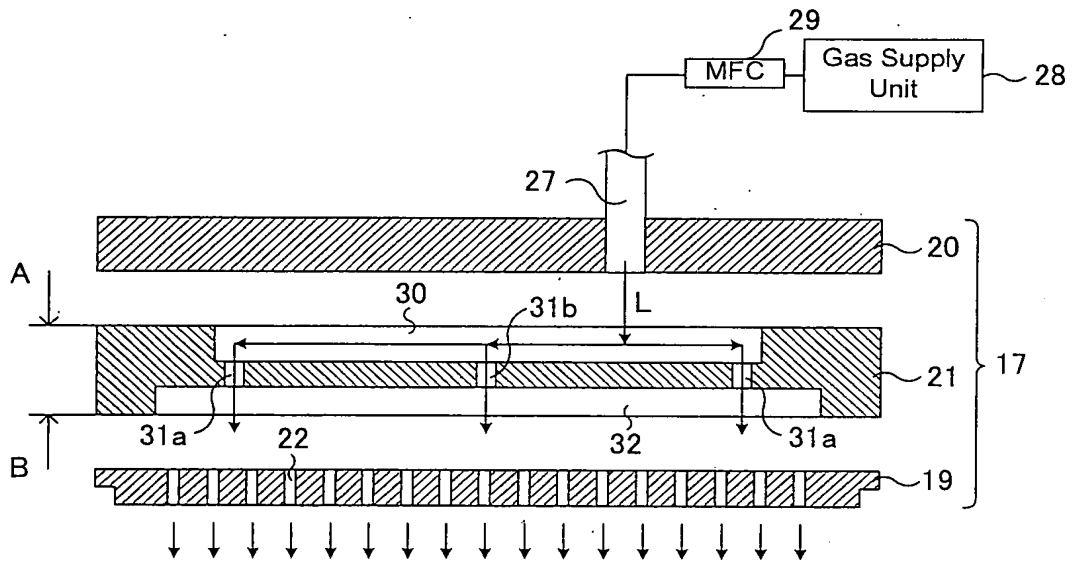


FIG.2

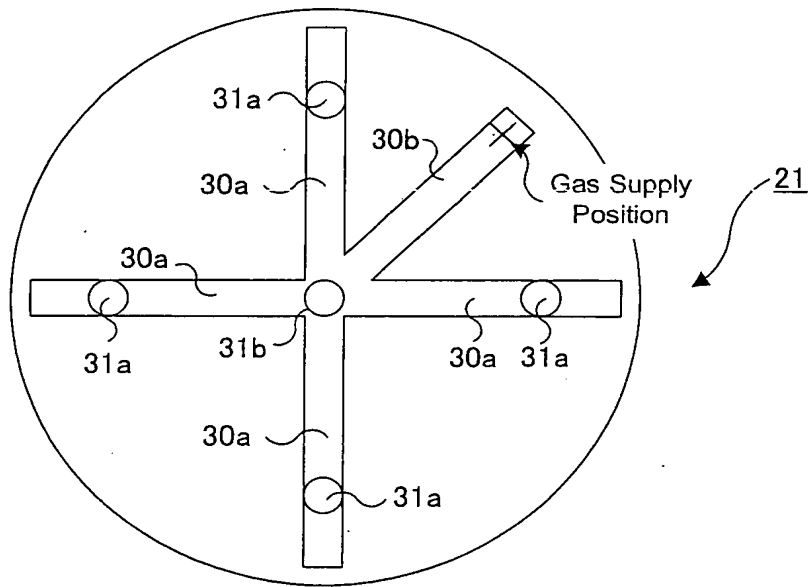


FIG. 3 Diagram As Seen From Arrow A

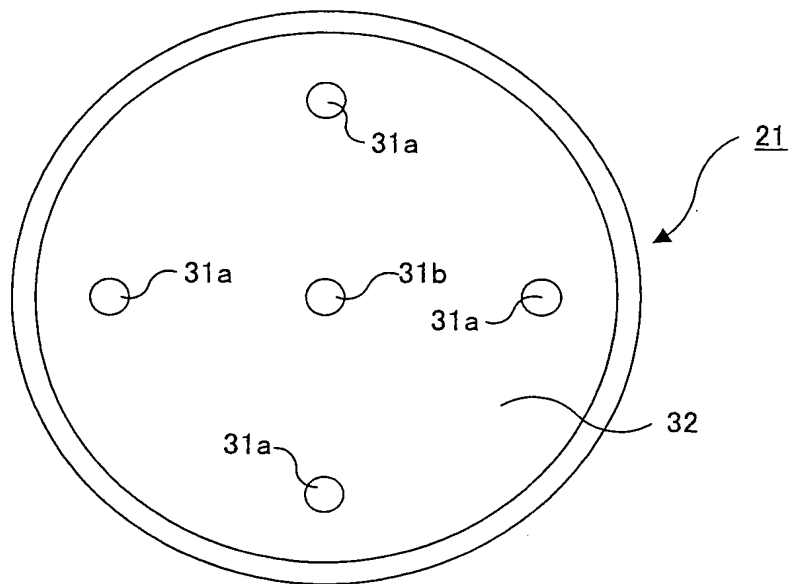


FIG. 4 Diagram As Seen From Arrow B

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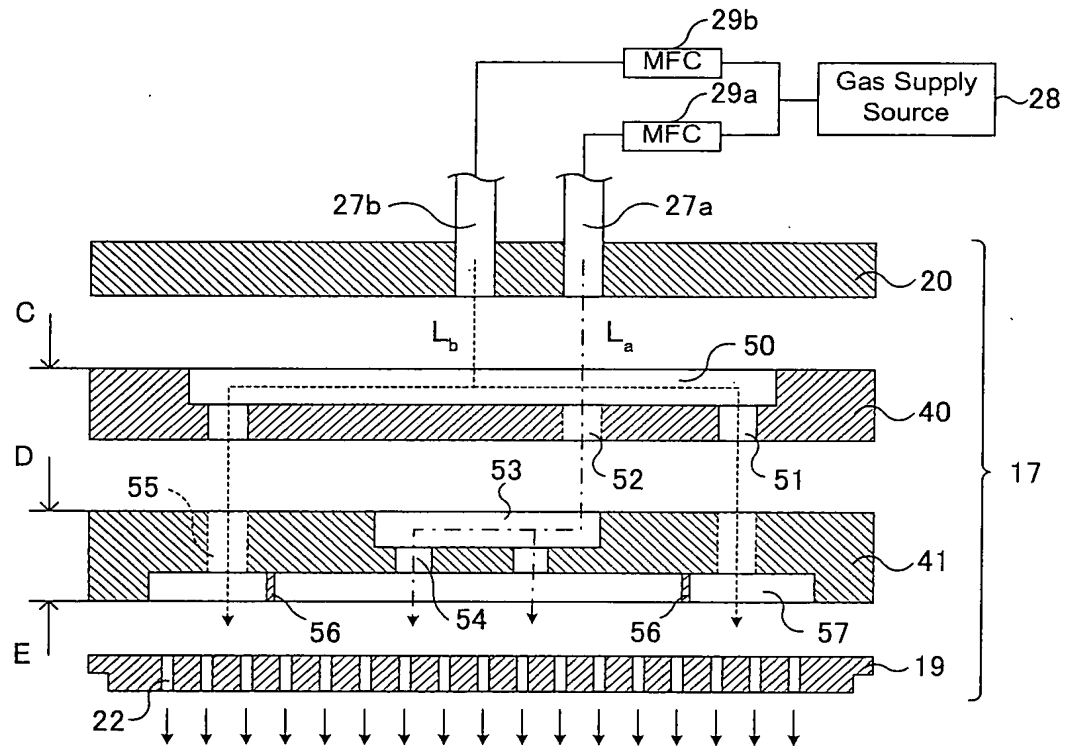


FIG.5

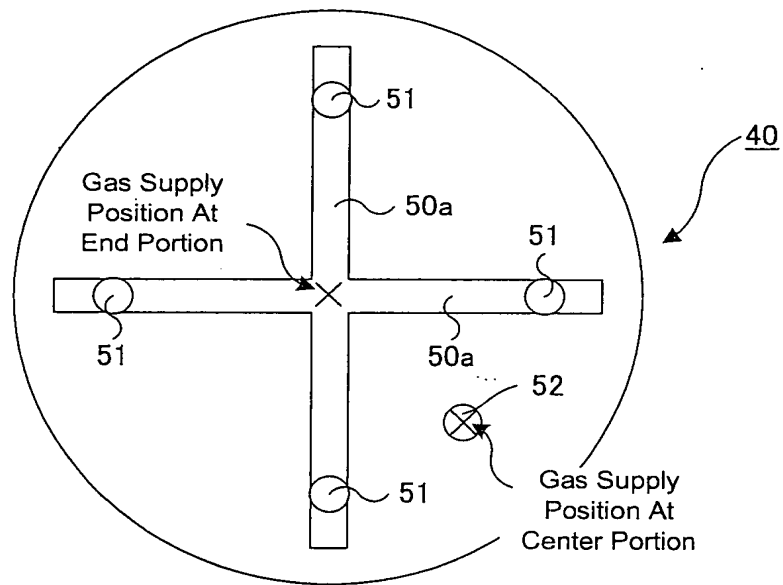


FIG.6

Diagram As Seen From Arrow C

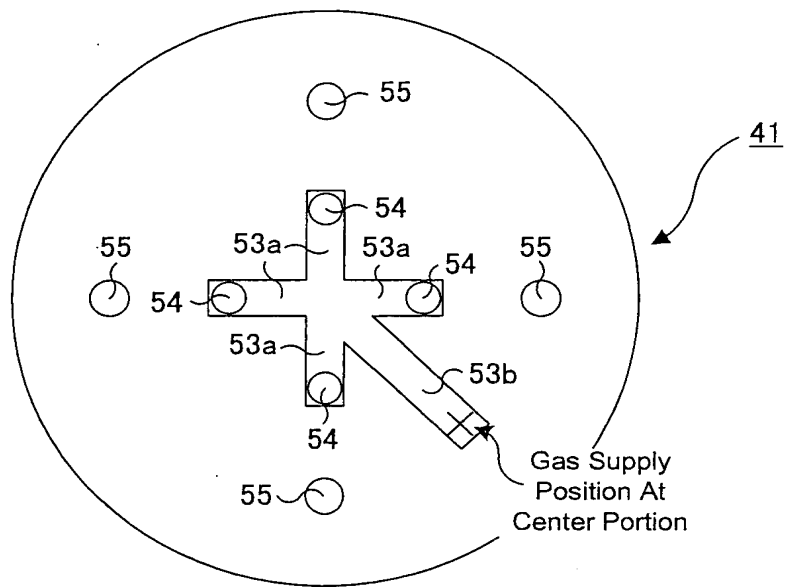


FIG. 7 Diagram As Seen From Arrow D

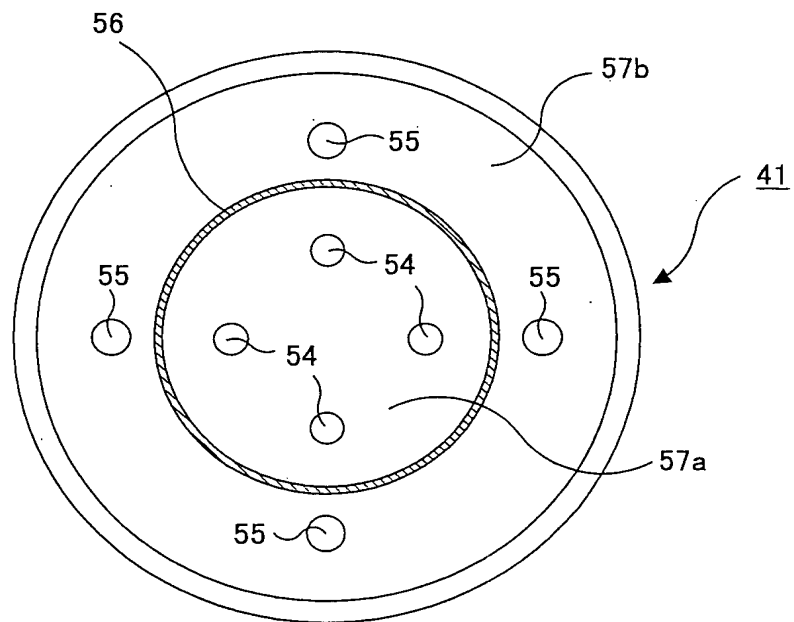


FIG. 8 Diagram As Seen From Arrow E

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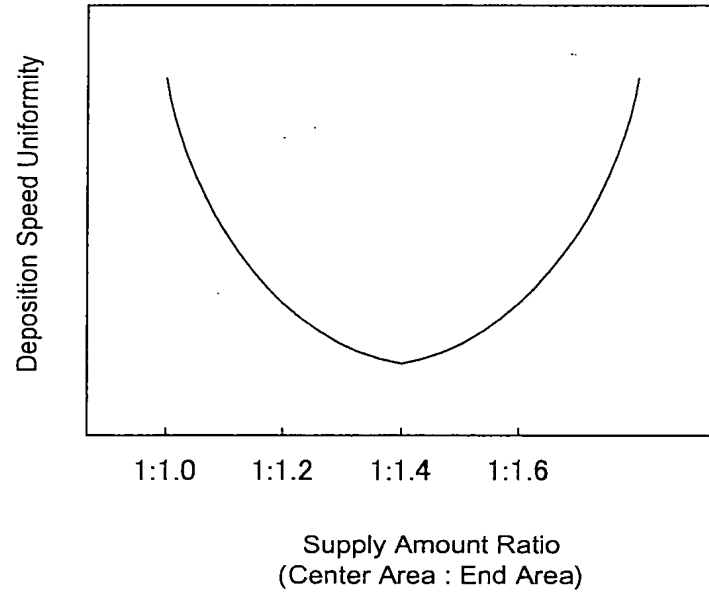


FIG.9

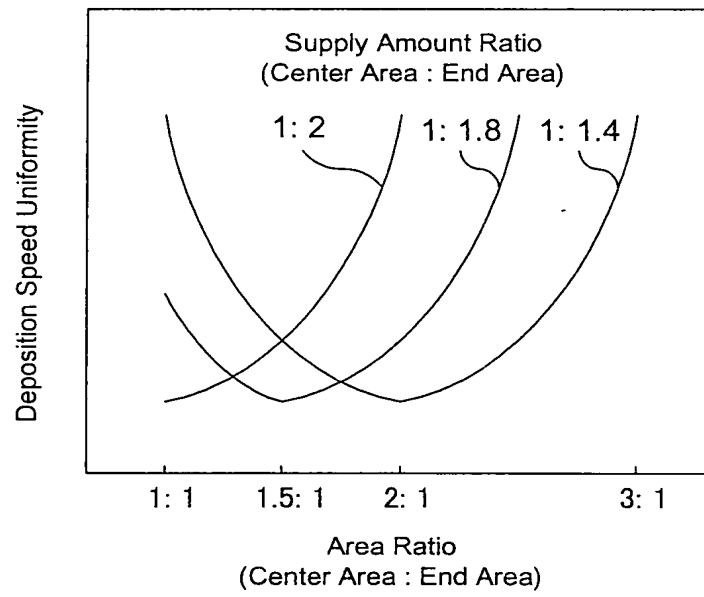


FIG.10

| | Substitutable Gases |
|---|--|
| SiH ₄ | TEOS, Si ₂ H ₆ |
| SiF ₄ | SiH ₂ F ₂ , Si ₂ F ₆ |
| CH ₄ | C ₂ H ₆ , C ₃ H ₈ , C ₂ H ₄ , C ₂ H ₂ |
| C ₆ F ₆ | CF ₄ , C ₂ F ₆ , C ₃ F ₈ , C ₅ F ₈ |
| N ₂ | N ₂ O, NO |
| O ₂ | N ₂ O, NO, CO, CO ₂ , O ₃ |
| (CH ₃) ₃ SiH Trimethylsilane | (CH ₃)SiH ₃ , (CH ₃) ₂ SiH ₂ , (CH ₃) ₄ Si, DMDM, TMCTS, V ₃ D ₃ , HMDSO, OMCATS |

DMDM: Dimethyldimethoxysilane
 TMCTS: 1,3,5,7-Tetramethylcyclotetrasiloxane
 V₃D₃: 1,3,5-Trimethyl-1,3,5-trivinylcyclotrisiloxane
 HMDSO: Hexamethoxydisiloxane
 OMCATS: Octamethylcyclotetrasiloxane

FIG.12

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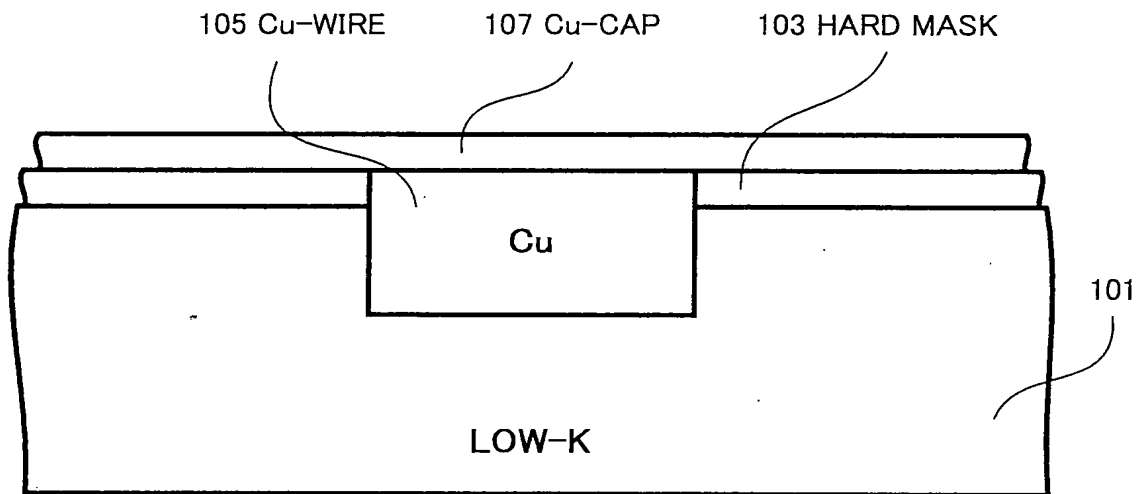


FIG.13

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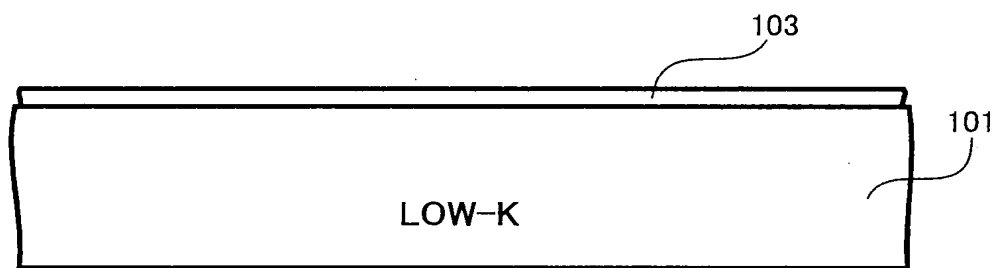


FIG.14A

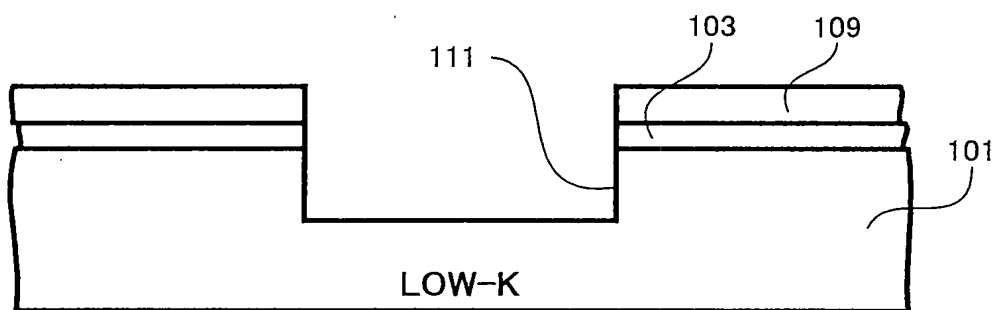


FIG.14B

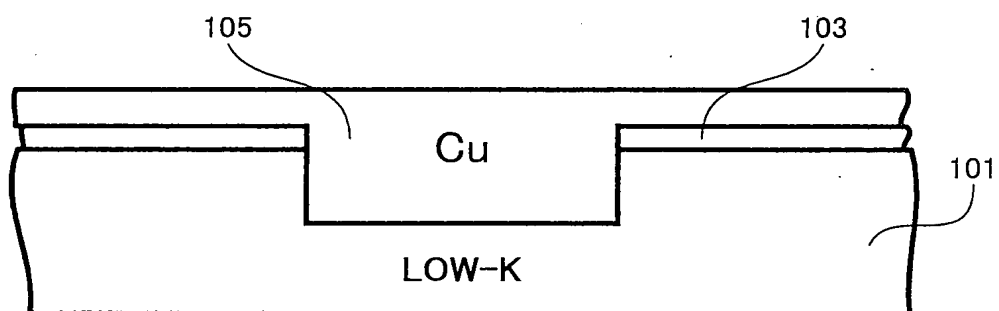


FIG.14C

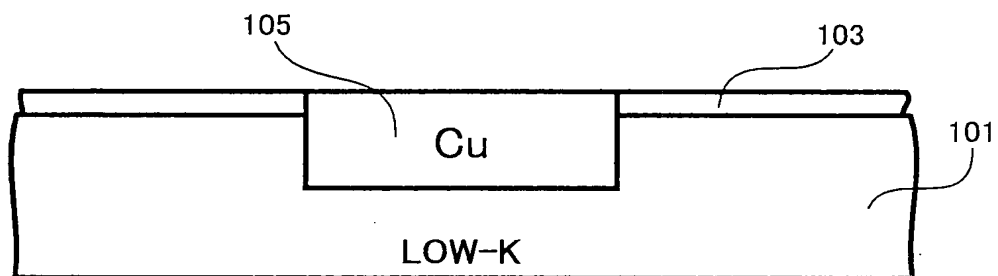
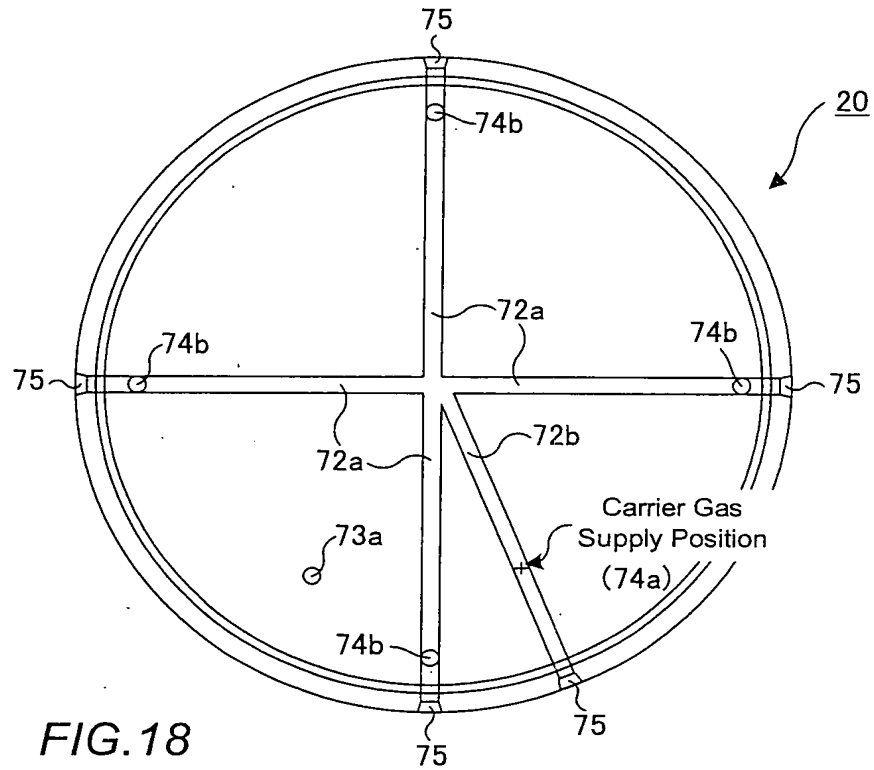


FIG.14D

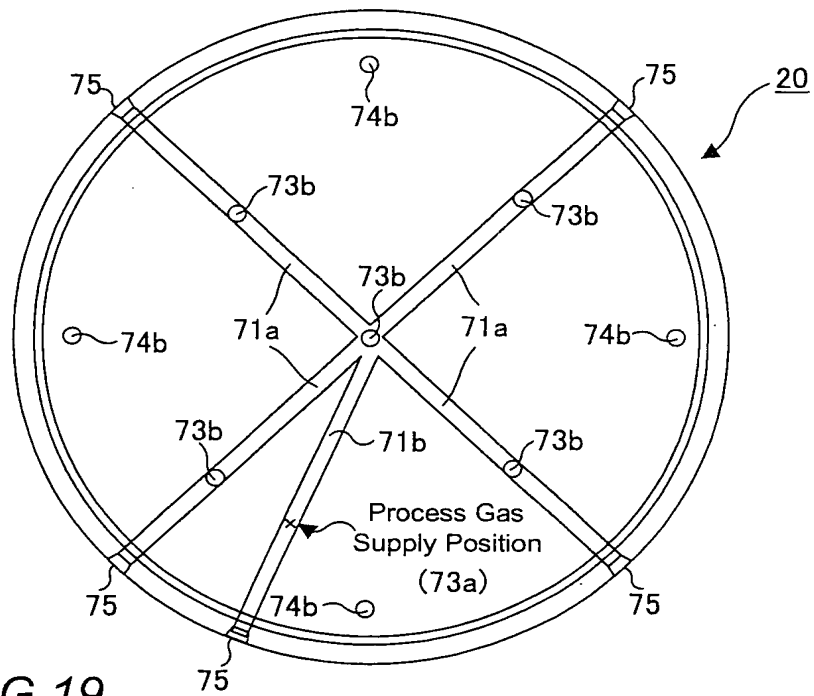
| He(C/E) (sccm) | HN3(C/E) (sccm) | O2(C/E) (sccm) | T/B (w) | Pressure (Torr) | Temperature (°C) | Time (minute) | Thickness (Angstrom) | Unification (1sgma%) |
|-------------------|--------------------|-------------------|------------|--------------------|---------------------|------------------|-------------------------|-------------------------|
| 300/300 | 40/40 | --/-- | 700/0 | 2.9 | 350 | 1.0 | 500 | 2.5 |
| 150/150 | --/-- | --/-- | 400/0 | 4.5 | 350 | 1.5 | 500 | 2.1 |
| 150/150 | --/-- | 7.5/7.5 | 400/0 | 4.5 | 350 | 9.0 | 5000 | 4.0 |

FIG.15

FIG.17



Cross-Section As Seen From Arrow A



Cross-Section As Seen From Arrow B